



JUN 21 2002
 Illinois Commerce Commission
 RAIL SAFETY SECTION

ILLINOIS COMMERCE COMMISSION

June 20, 2002

Bi-State Development Agency of the Missouri-Illinois District, a
 body corporate and politic created and existing by reason of a
 joint compact between the States of Missouri and Illinois,
 Petitioner,

Vs.

Illinois Commerce Commission,
 Respondent.

Petition for Exception to the Horn Sounding Requirements of 625
 ILCS 5/18c-7402(2)(a) with respect to the Agency's operation of
 Metro link in St. Clair County, Illinois.

T02-0036

TO ALL PARTIES OF RECORD:


ADMINISTRATIVE LAW JUDGE'S PROPOSED ORDER

Attached is a copy of the Administrative Law Judge's Proposed Order in the above
 referenced matter.

The Administrative Law Judge's Proposed Order is being sent to you pursuant to the
 Commission's Rules of Practice (83 Ill. Adm. Code 200). Your case is a "contested
 case" or "licensing case" as defined in Section 200.40 of the Rules and, therefore, the
 Hearing examiner is required under Section 200.820 to issue a Proposed Order to all
 parties.

Under Section 200.830 of the Rules, exceptions to the Proposed Order and replies
 thereto may be filed by the parties within the time periods established by the rules of
 such other times as fixed by the hearing examiner. The times for filing exceptions and
 replies are fixed at fourteen days and seven days, respectively.

ENTERED:


 Rick Korte
 Chief Administrative Law Judge
 Review and Examination Program

RK:rsc
 Railroad Staff: Mr. Berry

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DOCKETED

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

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ORDER

By the Commission:

On April 10, 2002, Bi-State Development Agency of the Illinois-Missouri District ("Bi-State" or Petitioner), filed its PETITION FOR EXCEPTION TO REQUIREMENTS OF 625 ILCS 5/18c-7402(2)(a) with the Illinois Commerce Commission ("Commission") naming therein the Commission as Respondent. Bi-State requests an Order of the Commission granting permission to continue to operate the MetroLink Light Rail System along its alignment in St. Clair County, Illinois, pursuant to its current safety and operating guidelines, that Petitioner be excused from sounding a whistle warning ¼ mile prior to an at-grade railroad crossings as currently required by the requirements of 625 ILCS 5/18c-7402(2)(a), and for any such further relief as the Commission deems necessary.

Pursuant to the rules and regulations of the Commission, this matter came on for hearing on May 15, 2002, before a duly authorized Administrative Law Judge of the Commission at its offices in Springfield, Illinois. At the conclusion of the hearing on May 15, 2002, the matter was marked "Heard and Taken."

Petitioner is a body corporate and politic created and existing by reason of a joint compact between the states of Illinois and Missouri, as codified at 45 ILCS 100, et seq. and 70.370 Mo. Rev. Stat., et seq. Bi-State has constructed and operates a light rail alignment providing passenger service between Lambert Airport located in St. Louis County, Missouri, through the City of St. Louis, across the Mississippi River, through East St. Louis, Illinois, to the Southwestern Illinois

College campus located in St. Clair County, Illinois. There are 23 at-grade crossings in Missouri and Illinois, with 14 at-grade crossings located in St. Clair County, Illinois, with the remaining nine crossings located in the State of Missouri. Bi-State operates over 1,600 MetroLink light rail passenger train trips along the previously described alignment on a weekly basis. The majority of MetroLink trips are operated Monday through Friday, with a reduced schedule on Saturday and Sunday. During morning and evening rush hours and certain special events, 21 to 25 two-car trains may be operating on the 34.4-mile alignment between Lambert Airport and Southwestern Illinois College. Due to operating over smaller gage track, there is no freight train or Amtrak passenger train traffic on bi-State's rail line.

Three of the at-grade crossings in St. Clair County, were constructed prior to 1993 and have been in continuous operation since 1993 in connection with Phase 1 of the MetroLink alignment, which extends from Lambert Airport, St. Louis, Missouri, to Fifth and Missouri Avenues in East St. Louis, Illinois. Each of the three at-grade crossings in Illinois constructed prior to 1993 were inspected and approved by the Missouri Division of Motor Carrier and Railway Safety in connection with Phase 1 of the project. By Form 3 Petitions, required to be submitted by Bi-State per Commission Orders in Dockets T01-0011, T01-0012, and T01-0013, Bi-State sought Commission review and approval of Bi-State's compliance with the safety requirements for the construction of Phase 2 of the project that extends from Fifth and Missouri Avenues in East St. Louis, Illinois, to Southwestern Illinois College campus located in St. Clair County, Illinois. By X-Resolutions adopted by the Commission on April 26 and April 27, 2001, the Commission authorized Bi-State's construction and use of eleven at-grade crossings located in St. Clair County, Illinois.

Bi-State testified at the May 15, 2002, hearing, that in order to reasonably and sufficiently ensure the safety and protection of the public at each of the Illinois MetroLink at-grade crossings, including the three at-grade crossings in use prior to 1993 and not subject of Commission Orders in Docket T01-0011, T01-0012, and T01-0013, cantilever mounted automatic flashing light signals, gates, and warning bell to alert vehicular traffic of an oncoming train. All Illinois MetroLink crossings, except Main Street and 4th Street, which are one-way streets, are equipped with concrete medians or Quik-curb median barriers to aid in the prevention of motorist from driving around lowered gates. The warning devices are activated when a train is 25 to 30 seconds away from entering each crossing. The current time sequence for all MetroLink crossings is as follows:

- At 25 to 30 seconds before a light rail vehicle enters a grade crossing, the bells and lights at the crossing are activated by the approach of a train.
- Within 3 to 4 seconds after the bells and warning lights at the crossing are activated, the crossing gate begins to lower from a 90° position to a horizontal position. This process takes approximately 11 to 12 seconds.

- 10 to 15 seconds before a light rail vehicle enters a grade crossing, the crossing gate is in the full horizontal position.
- 25 to 30 seconds after the bells and warning lights first were activated at the crossing, the light rail vehicle enters the crossing.

The distance from the crossing that the gates are activated is dependent on train speed (i.e. at 55 mph., the gates are activated at approximately 2,600 feet, whereas at 25 mph. the gates are activated at approximately 1,400 feet to ensure that the warning lights and bells are activated 25 to 30 seconds before the light rail train enters the crossing and the crossing gate is in the horizontal position 10 to 15 seconds before the light rail train enters the crossing.

In addition, another operation safety feature is all light rail operators are required to adhere to certain safety rules prior to entering a crossing. First, MetroLink operates with an abbreviated horn signal in Illinois and Missouri since 1993. The horn signal currently being used by MetroLink is two long horn blasts, with the first blast made at approximately 30 feet from a crossing. The second long horn blast must be completed as the light rail train enters the crossing. An operator is permitted, pursuant to Bi-State rules, to make only one long horn blast if the operator is certain that there are no vehicles or pedestrians at or approaching the crossing, said blast is to be made at approximately 300 feet before entering the crossing. Intersections with restricted visibility require two long horn blasts. Secondly, the grade crossing signals include lunar indicators facing the approaching light rail train to advise the operator of the train whether the crossing gate and signals are operating properly. If a solid lunar indicator is displayed, the crossing is clear of obstructions, and it can be visually confirmed that the gates are in the horizontal position for a maximum of 5 seconds and properly protecting the crossing, the operator may proceed at maximum timetable speed. If a solid lunar signal is not present or is flashing, the train operator must stop the train before entering the grade crossing and contact Bi-State MetroLink Central Control. Once it is determined that the crossing is safe, the light rail train may enter the grade crossing at a restricted speed, sounding its horn and/or bell until the front of the train completely occupies the grade crossing.

There has been only one (1) accident along the Illinois portion of the MetroLink line. It occurred at the 15th street crossing in East St. Louis, when an automobile being pursued by the police drove around the activated and lowered gates and struck the light rail train broadside after the train had occupied the crossing.

In support of its position that it should be excused from the Commission's whistle requirements due to the difference in the type of light rail trains that Bi-State operates compared to a standard freight train or passenger train, Bi-State

further testified that the light rail trains have three braking systems. The specifications for deceleration rates (stopping distances) for light rail trains are as follows:

- As mentioned previously, light rail trains have three types of brakes: (1) dynamic; (2) disc; and (3) track;
- Under normal operating conditions, dynamic brakes are used for stopping;
- The disc brakes are used as parking brakes;
- The track brakes are used with the other braking systems to stop the light rail trains in case of an emergency;
- Full service/dead man brakes equal 3 miles/hour/second ("mphps");
- Full service with track brakes equals 3.5 mphps;
- Emergency brake rate (including track brakes) is equal to or greater than 5.5 mphps.

Bi-State is not aware of any Federal Transit Administration regulations pertaining the sounding of warning whistles prior to at-grade crossings.

Staff has reviewed the aforementioned testimony and has held discussions with Bi-State after the hearing on May 15, 2002, concerning braking distances and stopping times and staff recommends that Bi-State light rail train operators sound whistle (horn) warnings in the manner and at the locations as further described in Findings (3a, 3b, and 3c). The aforementioned tables developed by staff are derived from data contained in Petitioner's Exhibit 2, titled St. Louis LRV Braking Distances and Stopping Times, utilizing the braking mode listing in the center column marked "Full Service Brake w/Track". Staff's recommendations are based upon the speed of the train and the deceleration rate in mph/sec. Staff also strongly recommends that Bi-State be required to maintain the medians, including the Quik Curb type medians, to insure the integrity of the curbs to prevent the circumnavigation of the crossing gates. Therefore, staff has no objection to the entry of an Order granting a variance from the whistle requirements as contained in 625 ILCS 5/18c-7402(2)(a) as long as the aforementioned staff recommendations, as contained in Findings (3a, 3b, and 3c) of this Order, are incorporated therein.

The Commission, having given due consideration to the entire record herein, finds that:

- 1) the Commission has jurisdiction of the parties hereto and the subject matter herein;

- 2) the recitals of fact as set forth in the prefatory portion of this Order are true and correct and are hereby adopted as findings of fact;
- 3) Bi-State should be excused from sounding a warning whistle as required by the Commission's 625 ILCS 5/18c-7402(2)(a) and be granted permission to sound whistle warnings on its light rail system in the manner as recommended by staff in the tables (a, b, and c) herein below; Bi-State shall also install whistle posts at the locations as set forth in (a, be, and c) herein below;
 - a) For trains operating between 46 and 55 mph (80.69 fps) will require the horn to be sounded beginning at 700 feet from the crossing in the following manner. Whistle posts will be required at the 700-foot location.

| 1 st Blast | Horn Duration | 2 nd Blast | Horn Duration | 3 rd Blast | Horn Duration |
|-----------------------|-----------------|-----------------------|---------------|-----------------------|---------------|
| | 2 Second | | 2 Seconds | | Continuous |
| 700' | 8.3 to 6.3 Sec. | 400' | 5 to 3 Sec. | 150' | Continuous |

- b) For trains operating between 36 to 45 mph (66.02 fps) will require the horn to be sounded beginning at 500 feet from the crossing in the following manner. Whistle posts will be required at the 500-foot location.

| 1 st Blast | Horn Duration | 2 nd Blast | Horn Duration | 3 rd Blast | Horn Duration |
|-----------------------|-----------------|-----------------------|-----------------|-----------------------|---------------|
| | 2 Second | | 2 Seconds | | Continuous |
| 500' | 7.6 to 5.6 Sec. | 300' | 4.5 to 2.5 Sec. | 100' | Continuous |

- c) For trains operating between 0 and 35 mph, the sounding of a whistle warning can commence at 300' from a crossing and Bi-State can use the current horn durations. Whistle posts will be required at the 300-foot location.
- 4) Bi-State shall be required to maintain at its expense the whistle posts and crossing medians, except at the one-way streets, at its crossings in the State of Illinois;

IT IS THEREFORE ORDERED by the Commission that Bi-State be, and it is hereby, required and directed to sound a whistle warning at its at-grade crossings in the State of Illinois in the manner as described in the tables of Findings (3a, 3b, and 3c) herein.

IT IS FURTHER ORDERED that Bi-State be, and it is hereby, required and directed to install, at its expense, whistle posts at the locations as described

in the Finding (3a, 3b, and 3c) herein and hereafter maintain the whistle posts at its expense.

IT IS FURTHER ORDERED that Bi-State be, and it is hereby required and directed to hereinafter maintain at its expense the median barriers at all its crossings on the MetroLink light rail line in Illinois, except those crossings located on one-way streets.

IT IS FURTHER ORDERED that the whistle posts hereinbefore required shall be installed within thirty (30) days from the date of this Order.

IT IS FURTHER ORDERED that Bi-State shall file a written notice with the Commission within five (5) days of the completion of the work herein required.

IT IS FURTHER ORDERED that subject to Section 18c-2201 and 18c-2206 of the Law, this is a final decision of the Commission, subject to Administrative Review Law.

By the Commission this day of , 2002.

Chairman